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W. J. Gerald

Deputy Minister.

LABORATORY

OF THE

INLAND REVENUE DEPARTMENT

OTTAWA, CANADA

BULLETIN No. 151

STANDARD FERTILIZERS, 1908

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OTTAWA, April 14, 1908.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

SIR,—I have the honour to report upon 199 samples of Agricultural Fertilizers, registered for sale in Canada in 1908.

The appended table is self explanatory, and contains a statement of the guaranteed content of each sample, as well as the content found by analysis in this Laboratory.

The Fertilizers Act (Chap. 132, R. S. 1906) Section 4, requires the publication of the "relative value of each fertilizer calculated from its contents in fertilizing ingredients, at their current market value."

The following values have been used in calculating this relative value :—

	Cents per lb.
Nitrogen, in salts of ammonia, or nitrates, as well as in compound fertilizers	17
Organic nitrogen, in ground bone, fish blood or tankage	16
Phosphoric acid :	
Soluble in water	6
Soluble in 1 per cent. citric acid solution	5½
Insoluble in Thomas phosphate powder, bone, fertilizers generally	1½
Potash, in compound fertilizers	5

Owing to the fact that the nitrogen in most of the compound fertilizers, is derived in part from organic but chiefly from inorganic materials, its value has been, in most cases taken at 17 cents per lb. It is believed that the error so introduced, is small enough to be negligible.

The valuation of the phosphoric acid involves greater difficulty. Many samples are accompanied by statements of the total phosphoric acid, without distinguishing between soluble and insoluble acid. In such cases it has been impossible to place a value based on the manufacturer's or importer's guarantee ; but the relative value is calculated upon the results of analysis of the sample deposited here. Whether the importer can be held responsible, without his explicit consent, for such valuation is an open question. It has been claimed that, while the importer guarantees a minimum percentage weight of phosphoric acid, he does not guarantee a minimum value for such ingredient.

In a few cases, there occur in the tables, samples which have been analysed and registered although intended rather for *use* than for *sale* by the sender. This arises from indefiniteness on the part of the sender in stating just what was wanted.

It is probable that most of the brands registered as 'tankage' are not intended for sale as fertilizers, but rather, for sale as material for the manufacture of fertilizers. Strictly speaking it is no part of the duty of this Department to do this class of work, which is entirely commercial in its character, and should be left to be dealt with by those financially interested in it.

The regulation under which a fertilizer analysis is made in this laboratory for the nominal charge of three dollars, is made primarily in the interest of users of fertilizers, or of dealers in the same who may desire to be in a position to give a personal guarantee as to the value of the goods they sell. The Departmental laboratory does not desire to come into competition with commercial analysts, or to regulate the fees properly remunerative, for such work. It is only in such cases where we have found it impossible to make the above indicated distinctions, that work of the kind described has been accepted in this laboratory.

In our last bulletin (No. 134) on this subject, the late Chief Analyst remarks as follows: "The Fertilizers Act, 1890, requires that (Standard) samples shall be transmitted to the Minister of Inland Revenue, before the end of the month of January in each year, but, to suit the convenience of the manufacturers, this term has been gradually extended until samples are accepted which come as late as the end of April."

I have found it necessary, this year, to concede the same extension of time, and would respectfully draw your attention to the fact that the main object for which this publication exists, is really defeated by the delay referred to. This Bulletin is intended to furnish farmers and gardeners with information as to different brands of fertilizers to be offered for sale in Canada during the next following season. Unless the publication is in their hands, before they require to place their orders for fertilizers it is manifestly useless to them. As a matter of fact, this bulletin should be available to the public on the first of March.

Phosphate Slags. — Seven of the fertilizers herein registered are ground slags, containing from 16 to 20 per cent. of phosphoric acid, to which they owe their fertilizing value. None of this phosphoric acid is in the free state; but the special combinations in which it exists are not fully known. By reference to Bulletin No. 70 (May, 1900) and No. 75 (May, 1901), it will be seen that the late Chief Analyst gave consideration to the question of expressing the "relative value" of phosphoric acid in these slags, as compared with the value of phosphoric acid in acidulated fertilizers. For various reasons, which are stated in Bulletin 70, he concluded "that it would be inconvenient and possibly unjust, to change a system which has been established for twelve years, and which is well understood by the fertilizer manufacturers and agriculturists of the Dominion, without at least substituting for it another which has the approval of a body of British Chemists having a reputation equally as high as that of the United States Association of Agricultural Chemists."

The matter was referred to the Society of Public Analysts, London (See Bulletin 75, p. 5), but, further than expressing themselves dissatisfied with the application of the Ammonium citrate process to basic slags, no conclusions were reached.

Here the matter has rested; and a 1 per cent. citric acid solution has been applied to the determination of so called "available" phosphoric in slags, as in other fertilizers, since 1901.

The same process has been used in the samples now reported, because I am not prepared to recommend another process, as yet. But I am not persuaded that the process now employed, is all that could be wished, or that its indications do justice to the particular class of fertilizers known as phosphatic slags. It is certain that it would be unfair to apply the "relative numbers" based upon present methods of analysis, in comparing the fertilising value of a slag with that of a superphosphate fertilizer. The "relative values" herein given for slags, must be interpreted as only applicable to slag fertilizers, when compared with each other. And it is not certain that even then the conclusions drawn will be true to the facts, as indicated by field experiments.

It is not impossible that the phosphoric acid in slags is practically all of one kind, its availability depending rather upon the fineness with which the slag is ground, than upon any actual state of combination. The whole question of valuation of slags is yet undergoing study; and I hope that before another Bulletin dealing with fertilizers is issued, I shall be able to describe a method of analysis more fully meeting the exigencies of the case.

Reverted Phosphoric Acid—The substitution of a 1 per cent. solution of citric acid, for the usual solution of ammonium citrate, in determining reverted phosphoric acid, was made by the late chief Analyst for reasons given in Bulletin 75 (page 6) These may be quoted here.

'Besides defending the position taken by this Branch, and also by the Agricultural Committee of the House of Commons. I also suggested a plan by which *all* fertilizers could be tested by exactly the same method without doing any injustice to the Thomas Phosphate Powder or basic slag. This consisted (after the removal of the soluble phosphoric acid, when present, by water) in boiling the water-insoluble residue, or, in the case of basic slag, the powdered sample direct with a strong solution of ammonium chloride, so as to remove any free lime which the sample might contain, and after this to determine the available phosphoric acid by a 1 per cent. solution of citric acid as recommended by Dr. Bernard Dyer. The latter part of the plan is justified in an elaborate paper by that gentleman entitled "On the analytical determination of probably available mineral plant food in soils", and published in the Journal of the Chemical Society Vol. LXV; from which the following important conclusion may be quoted:— "A one per cent citric acid solution appears, then, to give indications fairly bearing out the manurial properties of phosphatic materials as recognized by experience in the field; it approximates fairly well to the average strength of the natural solvent (root-sap) used by the plant itself; and tested by the result it gives on soils of known history and condition, it appears likely to afford a not unreliable means of gauging, as regards the available mineral constituents the probable fertility of the soil itself".'

This substitution of citric acid for citrate of ammonium has the disadvantage of making a comparison between the same brands of fertilizer analyzed in this laboratory, and the laboratories of the United States, impossible or at best, unsatisfactory. The differences are certainly not great, but they are variable, since the complex nature of mixed fertilizers causes a variable effect, for the two solutions in question. It is, on this account, to be desired that an international method of operating should be determined upon.

I have already drawn your attention to several points in which our present Fertilizer Act is in need of amendment or revision, and I am pleased to know that such revision is contemplated in the immediate future. I beg to recommend the publication of this report as Bulletin No. 151.

I have the honour to be, sir,
Yours obedient servant,

A. McGILL,
Chief Analyst.

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1907.					
Aug. 7	Bone Meal, B.M.P.	2052	Portland Seed Co., Portland, Oregon.	M. J. Henry, Vancouver, B.C.	.....
Sept. 19	Fertilizer.....	2053	Fowlers Canadian Co., Hamilton, Ont.	Manufacturers.....	Residue of lard tanks and beef and hog offal.
Aug. 20	Salmon Guano.....	2054	Fraser River Oilery, Vancouver, B.C.	Fraser River Oil and Guano Co.	Fish offal.....
Nov. 21	"Scotia" Basic Slag.	2055	Alex. Cross & Sons, Ltd., Glasgow, Scotland.	R. A. Beckwith, Amherst, N.S.	By product in the manufacture of steel.
" 21	Nitrate of Soda.....	2056	" " ..	" " ..	.....
" 21	Muriate of Potash...	2057	" " ..	" " ..	.....
1908.					
Jan. 3	Bone Dust.....	2058	.....	Rufus R. Gage, Importer, Hamilton, Ont.	Bone.....
" 7	Sample E.....	2059	Harris Abattoir Co., Ltd., Toronto.	Manufacturers.....	Dried blood, bones and tankage.
10	Compound Fertilizer A.	2060	William Davies Co., Ltd, Toronto.	"	Blood, bone and dried albunimous matter.
" 10	Concentrated Fertilizer B.	2061	" " ..	"	Evaporated Tank water refuse.
" 21	Special Potato Manure.	2062	.....	R. A. Beckwith, Amherst, N.S.	Sulphate of ammonia, high grade German potash, animal matter and superphosphate.
" 21	Dissolved Bone.....	2063	R. A. Beckwith.....	" " ..	.....
" 21	Tankage D	2064	Davies Packing Co., Harriston, Ont.	Davies Packing Co., Harriston, Ont.	.....
" 24	Fertilizer (Tankage).	2065	D. B. Martin Co., Ltd., Toronto Junction.	Manufacturers	.....
" 24	Tankage.....	2066	Collingwood Packing Co., Ltd.	"	Tankage.....
" 25	Potato and Truck Manure.	2067	International Seed Co., Rochester, N.Y.	"	.....
" 25	Grain and Grass Fertilizer.	2068	International Seed Co., Rochester, N.Y.	"	.....
" 25	Crushed one.....	2069	Wm. Davies Co., Ltd., Toronto.	"	.....
" 25	Bone Meal.....	2070	"	"	.....
" 28	Tankage.....	2071	Davies Ltd., Montreal..	"	.....
" 28	Standard Bone and Potato Fertilizer.	2072	Michigan Carlton Works, Detroit, Mich.	Am. Agr. Chemical Co., Buffalo Sales Dept.	Blood, bone and tankage, mineral phosphates and potash.

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.											
	Nitrogen.		Phosphoric Acid.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.		No. of Sample.
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.			£	s.	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		p. c.			
Guaranteed contents	3·33	4·04	.....	.....	.....	21·12	15·6*		.....	29	75	2052
Contents as found...	3·50	4·25	.....	.....	5·87	21·00	15·1.	..	6·05	29	60	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2053
Contents as found...	7·00	8·50	0·12	7·30	2·88	10·30	7·42	.....	5·20	31	44	
Guaranteed contents	8·31	10·09	.....	.....	.....	6·32	.....	.....	6·55	.....		2054
Contents as found...	8·96	10·71	1·00	5·25	1·32	7·57	6·25	.....	5·95	36	04	
Guaranteed contents	.....	.....	.....	.....	.....	16to20	16·13	.....	.....	.....	.....	2055
Contents as found...	None	None	.....	10·10	6·10	16·20	10·10	.....	0·25	12	94	
Guaranteed contents	14·82	18·00	.....	.....	.....	.....	.....	.....	.....	50	39	2056
Contents as found...	14·42	17·60	.....	.....	.....	.....	.....	.....	1·00	49	03	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	50·00	.....	50	00	2057
Contents as found...	.....	.....	.....	.....	.....	.....	.....	55·76	.....	55	76	
Guaranteed contents	2·47	3·00	.....	.....	.....	23·00	.....	.....	.....	.....	.....	2058
Contents as found...	2·34	2·84	.....	11·50	11·50	23·10	11·60	.....	2·70	23	70	
Guaranteed contents	9·322	11·32	.....	.....	.....	7·135	.....	.....	6·65	.....	.....	2059
Contents as found...	9·70	11·78	0·10	5·75	1·42	7·27	5·85	.....	6·65	37	91	
Guaranteed contents	7·288	8·85	.....	.....	.....	13·877	.....	.....	11·00	.....	.....	2060
Contents as found...	7·78	9·69	4·25	6·22	2·85	13·32	10·47	.....	10·30	37	69	
Guaranteed contents	13·670	16·60	.....	.....	.....	.....	.....	.....	7·05	.....	.....	2061
Contents as found...	12·88	15·64	0·25	0·83	0·27	1·35	1·08	.....	6·60	42	51	
Guaranteed contents	1·65—3·20	2—4	.....	.....	.....	8	.....	7 to 9	.....	.....	.....	2062
Contents as found...	3·78	4·59	0·3	31	0·82	7·50	6·68	7·92	7·20	28	40	
Guaranteed contents	2·47	3·00	.....	.....	.....	20to25	.....	.....	.....	.....	.....	2063
Contents as found...	4·20	[illegible]	.....	9·85	11·65	21·50	9·85	.....	5·00	22	61	
Guaranteed contents	8·32	.....	.....	.....	.....	12·46	.....	.....	7·7	.....	.....	2064
Contents as found...	8·54	10·37	None	8·25	3·25	11·50	8·25	.....	9·65	37	38	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2065
Contents as found...	7·70	9·35	0·25	6·98	2·62	9·88	7·23	.....	10·50	33	40	
Guaranteed contents	7·94	9·65	.....	.....	.....	10·58	.....	.....	7·16	.....	.....	2066
Contents as found...	8·54	10·37	0·25	10·40	0·83	11·48	10·65	.....	4·77	39	32	
Guaranteed contents	1·25 to 2·05	1·50 to 2·50	6 to 8	2 to 3	1 to 2	9 to 13	8 to 11	7 to 10	.....	20	95	2067
Contents as found...	2·10	2·55	5·00	2·88	2·37	10·25	7·88	7·26	11·40	24	28	
Guaranteed contents	1·25 to 2·00	1·50 to 2·50	8 to 10	2 to 3	1 to 2	11to15	10to13	2·50to3·50	.....	18	85	2068
Contents as found...	1·32	1·60	5·62	3·98	3·12	12·72	9·60	2·87	12·20	19	42	
Guaranteed contents	4·08	4·96	.....	.....	.....	24·21	.....	.....	7·45	.....	.....	2069
Contents as found...	4·10	4·98	.....	16·63	7·82	24·25	16·63	.....	5·90	33	66	
Guaranteed contents	3·90	4·74	.....	.....	.....	22·35	.....	.....	7·40	.....	.....	2070
Contents as found...	4·03	4·90	.....	14·63	7·37	22·00	14·63	.....	6·15	31	20	
Guaranteed contents	6·24	7·57	.....	.....	.....	10·72	.....	.....	6·80	.....	.....	2071
Contents as found...	6·96	8·45	0·25	6·98	1·52	9·75	8·23	.....	5.70	30	71	
Guaranteed contents	1·65—2·47	2—3	6—7	2—3	1—2	9—11	8—10	4—5	.....	19	31	2072
Contents as found...	1·79	2·18	5·37	3·85	1·80	11·02	9·22	4·82	11·20	22	13	

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised	Designation.	No. of Sample.	Manufacturer.	By whom sent.	From what Materials Produced.
1908.					
Jan. 28	Great Eastern Northern Corn Special.	2073	Am. Agr. Chemical Co., Great Eastern Fertilizer Branch, Rutland, Vt.	Manufacturers.	
" 28	Great Eastern High Grade Potato Manure.	2074	"	"	
" 28	Great Eastern Potato Manure.	2075	"	"	
" 28	G. E. Potato Special.	2076	"	"	
" 28	G. E. General	2077	"	"	
" 28	G. E. Grass and Oats Fertilizer.	2078	"	"	
" 28	Aroostook Complete Manure.	2079	"	"	
" 29	Aroostook High Grade.	2080	A. A. C. Co	G. E. Fertilizer Branch, Rutland, Vt.	
" 29	Special Potato Mixture.	2081	Am. Agr. Co., Buffalo Sales Dept.	Manufacturers, Buffalo.	Animal matter, blood, bone and tankage, mineral phospates, potash and all treated with sulphuric acid.
" 29	High Grade Potash Compound.	2082	"	"	"
" 29	Bradley's New Method Fertilizer.	2083	"	"	"
" 29	Bradley's B.D. Sea-Fowl Guano.	2084	Am. Agr. Co., Buffalo Sales Department.	Manufacturers, Buffalo.	Animal matter, blood, bone and tankage mineral phosphates potash, and all treated with sulphuric acid.
" 29	Bradley's Complete Manure for Potatoes and Vegetables.	2085	"	"	"
" 29	Crocker's New York Special Phosphate.	2086	"	"	"
" 29	Crocker's Wheat and Corn Fertilizer.	2087	"	"	"
" 29	Crocker's Cabbage and Potato Manure.	2088	"	"	"
" 29	Crocker's Best Potash Fertilizer.	2089	"	"	"
" 29	Crocker's Complete Manure.	2090	"	"	"
" 29	Crocker's Special Potato Manue.	2091	"	"	"
" 29	North-Western Complete Manure.	2092	N. W. Fertilizing Co., Chicago, Ill.	Geo. C. Bingham, Buffalo.	
" 29	Michigan Carbon Fruit and Vine Fertilizer.	2093	Michigan Carbon Works, Detroit.	American Agr. Chemical Co., Buffalo.	

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.											
	Nitrogen.		Phosphoric Acid.									
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.	Potash.	Moisture.	Relative value per ton of 2,000 lbs.		No. of Sample.
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	$	c.	
Guaranteed contents	2·06 – 2·88	2·50 – 3·50	5 – 6	3 – 4	2 – 3	10 – 13	8 – 10	1·50 – 2·50	.....	18	46	2073
Contents as found ..	2·21	2·69	6·85	2·53	1·57	10·95	9·38	2 10	10 75	21	09	
Guaranteed contents	3·30 – 4·13	4 – 5	4 – 6	2 – 4	1 – 2	7 – 10	6 – 8	10 – 12	.....	28	52	2074
Contents as found ..	3·36	4·08	5·70	1·92	1·25	8·87	7·62	9·38	10 05	30	13	
Guaranteed contents	2·06 – 2·86	2·5 – 3·5	5 – 6	3 – 4	2 – 3	10 – 13	8 – 10	3 – 4	.....	19	90	2075
Contents as found ..	2·09	2·53	7·25	2·92	1·73	11·92	10·17	3·88	4·85	23	42	
Guaranteed contents	3·30 – 4·12	4 – 5	6 – 8	2 – 3	1 – 2	9 – 13	8 – 11	7 – 8	.....	27	92	2076
Contents as found ..	3·51	4·27	6·00	3·83	1·17	11·00	9·83	7·20	6·25	30	90	
Guaranteed contents	0·82 – 1·65	1 – 2	5 – 7	3 – 4	2 – 3	10 – 14	8 – 11	4 – 5	.....	16	69	2077
Contents as found ..	1·14	1·39	5·00	4·00	1·70	10·70	9·00	5·63	8·75	2	42	
Guaranteed contents	.....	.....	6 – 7	5 – 6	1 – 2	12 – 15	11 – 13	2 – 3	.....	15	00	2078
Contents as found ..	.....	.....	6·05	4·62	2·15	12 82	10·67	3·07	11·00	16	06	
Guaranteed contents	2·40 – 3·00	3 – 4	5 – 6	1 – 2	1 – 2	7 – 10	6 – 8	10 – 12	.....	25	56	2079
Contents as found ..	2·24	2·72	5·15	3·15	1·25	9·55	8·30	10 08	6·55	27	72	
Guaranteed contents	4·00 – 5·00	5 – 6	5 – 7	2 – 3	1 – 2	8 – 12	7 – 10	7 – 8	.....	29	10	2080
Contents as found ..	4·48	5·44	5·00	3·65	1·00	9·65	8·65	6·87	10·25	32	42	
Guaranteed contents	0·82 – 1·65	1 – 2	7 – 8	2 – 3	1 – 2	10 – 12	9 – 11	7 – 8	.....	20	69	2081
Contents as found ..	1·54	1·87	6·50	2·25	1·72	10·47	8·75	8·05	10·25	24	08	
Guaranteed contents	1·65 – 2·47	2 – 3	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	10 – 11	.....	25	31	2082
Contents as found ..	2·16	2·55	5·25	1·75	2·50	9·50	7·00	9·96	12·05	26	08	
Guaranteed contents	0·82 – 1·65	1 – 2	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	2 – 3	.....	14	49	2083
Contents as found ..	2·10	2·55	5·00	1·97	3·00	9·97	6·97	2 10	9·95	18	31	
Guaranteed contents	2·06 – 2·88	2·5 – 3·5	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	1·5-2·5	.....	18	20	2084
Contents as found..	2 25	2 74	5·25	2·40	2 75	10·40	7·65	2 29	10·35	19	71	
Guaranteed contents	3·29 – 4·12	4 – 5	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	7 – 8	.....	27	89	2085
Contents as found...	3·36	4·08	5·50	2·82	1 75	10·07	8·32	6·89	10·25	28	54	
Guaranteed contents	.....	.....	8 – 10	2 – 3	1 – 2	11 – 14	10 – 12	8 – 9	.....	20	10	2086
Contents as found...	0·31	0·37	9·50	0·25	1·25	11·00	9·75	7·74	10·05	20	84	
Guaranteed contents	2·06 – 2·88	2·5 – 3·5	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	1·5-2·5	.....	18	20	2087
Contents as found...	2·41	2·92	5·00	3·38	3·12	11·50	8·38	2·02	10·15	20	87	
Guaranteed contents	2·47 – 3·30	3 – 4	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	6 – 7	.....	24	10	2088
Contents as found...	3·18	3·91	6·75	2·42	1 25	10·42	9·17	5·89	8·75	27	84	
Guaranteed contents	1·65 – 2·47	2 – 3	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	10 – 11	.....	25	31	2089
Contents as found...	1·75	2 13	5·25	2·92	2·20	10·37	8·17	10·00	12 25	26	12	
Guaranteed contents	1 82 – 1·65	1 – 2	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	4 – 5	.....	16	49	2090
Contents as found...	0·95	1·16	5 50	1·42	2 80	9·72	6·92	4·40	12·15	16	63	
Guaranteed contents	3·29 – 4 12	4 – 5	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	7 – 8	.....	27	89	2091
Contents as found...	3·68	4·47	4·00	3·87	2·50	10·37	7·87	6·91	11·10	29	23	
Guaranteed contents	2·06 – 2·88	2 5 – 3·5	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	3 – 4	.....	19	70	2092
Contents as found.	2 31	2·91	4·25	3 00	2·75	10·00	7·25	3·49	14·10	20	57	
Guaranteed contents	1·65 – 2·47	2 – 3	6 – 7	2 – 3	1 – 2	9 – 11	8 – 10	10 – 11	.....	25	31	2093
Contents as found...	1·79	2·13	4·65	3·03	2 07	9·75	7·68	10·33	12·35	25	95	

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1908.					
Jan. 29	M. C. Complete Fertilizer.	2094	Michigan Carbon Co., Detroit.	" "	
" 29	M. C. Defiance Fertilizer.	2095	" "	" "	
" 29	M. C. General Crop Fertilizer.	2096	" "	" "	
" 29	M. C. Potato and Tobacco Fertilizer.	2097	" "	" "	
" 29	Homestead High Grade Garden Vegetable Fertilizer.	2098	" "	" "	
" 29	High Grade Fruit and Vegetable Fertilizer.	2099	" "	" "	
" 29	Pure Bone Meal	2100	W. A. Freeman Co., Ltd., Hamilton, Ont.	Manufacturer.	Phosphate, blood, bone, tankage, sulphuric acid muriate of potash, sulphate of potash, sulphate of ammonia, nitrate of soda.
" 29	Bone and Potash	2101	" "	"	"
" 29	Tobacco Manure	2102	" "	"	"
" 29	Celery and Early Vegetable Manure	2103	" "	"	"
" 29	Potato Manure	2104	" "	"	"
" 29	Sure Growth Manure	2105	" "	"	"
" 29	Phosphate Powder	2106	" "	"	"
" 29	Tankage Manure	2107	" "	" "	"
" 29	Fertilizer	2108	Fowlers Can. Co., Ltd., Hamilton, Ont.	"	Blood, bone and tank residue of hogs and cattle.
" 29	Thomas Phosphate Powder, 17.20.	2109	Works H. & E. Albert, London.	Anglo-Can. Chem. Co., St. John, N.B.	
" 30	Thomas Phosphate Powder, 14.16 (ground basic slag).	2110	H. E. Albert Works, London.	" "	
" 30	Alberti Horticultural Manure Brand, A. G.	2111	Chem. Works late H. & E. Albert, Biebrich on Rhine, Germany.	" "	
Feb. 5	Homestead Corn and Grain Producer.	2112	Michigan Carbon Works, Detroit.	Am. Agr. Chem. Co., Buffalo Sales Dept.	
" 5	Homestead Dissolved Bone Phosphate.	2113	" "	" "	
" 5	Fertilizer	2114	London Fertilizer Works, London, Ont.	Manufacturers	Bones and meat of animals.

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.											
	Nitrogen.		Phosphoric Acid.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.		No. of Sample.
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.			$	c.	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
Guaranteed contents	1·65–2·47	2–3	6–7	2–3	1–2	9–11	8–10	4–5	.....	19	31	2094
Contents as found..	1·88	2 28	5 17	3 56	2 37	11 10	8 73	4 32	12 15	21	54	
Guaranteed contents	1·65–2·47	2–3	6–7	2–3	1–2	9–11	8–10	2–3	.....	17	31	2095
Contents as found...	1 96	2 38	5 37	3·77	1 67	9 75	8·08	2·31	13·35	20	00	
Guaranteed contents	0·82–1·65	1–2	6–7	2–3	1–2	9–11	8–10	4–5	.....	16	49	2096
Contents as found...	0·91	1·11	4·50	3 80	1·95	10·25	8 30	4·15	13·65	17	41	
Guaranteed contents	2 06–2·88	2·5–3·5	6–7	2–3	1–2	9–11	8–10	3–4	.....	19	70	2097
Contents as found...	2 31	2·81	4·25	3 28	2·22	9·75	7·53	4·05	11·45	21	28	
Guaranteed contents	2 06 –2·88	2·5—3·5	6–7	2–3	1–2	9–11	8–10	6–7	.....	22	70	2098
Contents as found. .	2·16	2·62	5·52	4 23	1 25	11·00	9·75	6·31	12·10	25	31	
Guaranteed contents	3 29—4·12	4–5	6–7	2–3	1–2	9–11	8–10	7–8	.....	27	89	2099
Contents as found...	4·40	5·34	5 50	3·05	1·50	10·05	8·55	6·97	11·10	32	34	
						20·25						2100
Guaranteed contents	2·47 4·12	3 ·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Contents as found..	3·29	4·00	.....	13·75	7·75	21·50	13 75	....	8·60	28	64	
						9–10	.....	6–8	.....	.....	.....	2101
Guaranteed contents	1·65—2 47	2—3	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Contents as found...	3·02	3 67	1·22	4·95	2·95	9 12	6·17	6·29	10·10	24	35	
Guaranteed contens	2·47 – 3·29	3–4	.....	.....	.....	7 9	.....	4–5	.....	.....	.....	2102
Contents as found...	3·15	3 82	1·12	4·76	3 62	9·50	5 88	5·23	9·80	23	61	
Guaranteed contents	4·12–5·77	5–7	.....	.....	.....	9–10	.....	5–7	.....	.....	.....	2103
Contents as found...	5 50	6·68	0·85	6 03	2·37	9·25	6·88	4·96	9·15	32	02	
Guaranteed contents	2·47—3·29	3 4	.....	.....	.....	8 10	.....	5 7	.....	.....	.....	2104
Contents as found...	3·05	3·71	0·87	5·33	3·35	9·55	6·20	5·96	7·45	24	24	
Guaranteed contents	2 88—4 12	3·5—5	.....	.....	.....	8—10	.....	3—4	.....	.....	.....	2105
Contents as found...	3·43	4·16	0·47	5·93	2 90	9·30	6·40	4·61	6·95	24	23	
Guaranteed contents	.. ..	.....	.....	.....	.....	13–18	.....	.....	.....	.....	.....	2106
Contents as found.	.....	.....	.....	11 37	7 37	18 74	11·37	..	10·30	14	72	
Guaranteed contents	1·65—5·77	2—7	.....	.....	.....	12–15	.....	.....	.....	.....	.....	2107
Contents as found. .	7 08	8 60	0·25	9·50	2·25	12 00	9·75	.. ..	10.15	35	50	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2108
Contents as found...	7·06	8·57	0 12	5·33	1 30	6 75	2·45	....	6·85	28	99	
Guaranteed contents	.....	.....	.....	.....	.....	17 20	.....	....	.....	.....	.....	2109
Contents as found...	.....	.....	.. ..	13·00	5 25	18 25	13·00	....	Trace	15	88	
Guaranteed contents	.....	.....	.....	.....	.....	14 16	.....	.....	.....	.....	.....	2110
Contents as found...	.....	.....	.....	12 45	4 30	16 75	12 45	.....	Trace	14	99	
								15 16	.....	68	94	2111
Guaranteed contents	11·90	14·45	11·10	.....	.....	.....	.....	.....	.....	.....	.....	
Contents as found...	12·07	14·65	11 10	None	Trace	11·10	11·10	15·25	13·95	69	61	
Guaranteed contents	1·65—2·47	2—3	6—7	2—3	1—2	9—11	8—10	2—3	...	17	31	2112
Contents as found...	2·66	2·87	6 17	3 53	2·30	12 00	9·70	2·24	9·45	23	26	
Guaranteed contents	.. ..	.....	10 12	2—3	1 · 2	13—15	12—14	.....	.....	14	50	2113
Contents as found...	.....	.....	10·40	2·05	1·92	14·37	12 45	. .	10·90	15	31	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2114
Contents as found...	4·24	6·36	Trace	8·32	2·00	10·32	8·32	.....	10 50	23	32	

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1907.					
Feb	5 Watch 'Em Grow ..	2115	Standard Fert. & Chem. Co., Ltd., Smith's Falls	" " ..	Nitrate of soda, ammonia, potash and magnesia salts. Bone, superphosphate of lime and bone meal.
"	7 Fertiliser Tankage.	2116	Laing Packing and Provision Co., Montreal.	Manufacturers..... ..	Bones and offal of hogs, cattle and sheep.
"	7 Dried Blood.....	2117	" " ..	"	Blood of hogs, cattle and sheep.
"	13 Ground Bone.....	2118	The Pidgeon Fertiliser Co., Ltd., Windsor, N.S.	"	Nitrate of soda, dried blood and tankage, ground bone, muriate of potash, potash salts, rock phosphate, sulphuric acid and sulphate of ammonia.
"	13 Intense Brand ..	2119	" " ..	"	" ..
"	13 Potato Manure ...	2120	" " ..	"	" .
"	13 Potato Guano	2121	" " ..	"	" .
"	13 Brunswick Brand. .	2122	" " ..	"	" ..
"	13 Eureka Phosphate ..	2123	" " ..	"	" ..
"	14 Swifts Lowell Cereal Fertilizer.	2124	Swifts Lowell Fertilizer Co., Boston, Mass.	"	Blood meat, bone, bone black, bone phosphates, nitrate of soda or sulphate of ammonia and sulphate or muriate of potash.
"	14 Empress Brand.	2125	" " ..	"	" ..
"	14 Bone Fertilizer.....	2126	" " ..	"	
"	14 Animal Brand ...	2127	" " ..	"	" ..
"	14 Potato Manure.....	2128	" " ..	"	" ..
"	14 Potato Phosphate ..	2129	" " ..	"	" ..
	14 Potato Grower ...	2130	" " ..	"	" ..
"	14 Swifts Superior Fertilizer.	2131	" " ..	"	" .
"	14 Lowell Ground Bone.	2132	Swift's Lowell Fertilizer Co., Mass.	Manufacturers.....	

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.											
	Nitrogen.		Phosphoric Acid.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.		No. of Sample.
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.			$	c.	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
Guaranteed contents	3·29	4	.....	.....	.....	.....	.....	8	.....	29	08	2115
Contents as found...	4·02	4·88	11·00	0·85	1·55	13·40	11·85	7·43	6·70	35	70	
Guaranteed contents	7·66	9·31	.....	.....	.....	10·46	.....	.....	13·60	.....		2116
Contents as found ..	7·56	9·18	5·00	2·50	2·95	10·45	7·50	.....	10·00	33	83	
Guaranteed contents	12·84	15·60	.....	.....	.....	.....	.....	.....	17·11	.....		2117
Contents as found..	13·22	15·95	0·50	0·25	None	0·75	0·75	.....	15·95	43	18	
Guaranteed contents	2·47	3·00	.....	.....	.....	20·00	.....	.....	.....	.....		2118
Contents as found..	2·76	3·37	.....	13·00	11·00	24·00	13·00	.....	4·65	26	98	
Guaranteed contents	2·06	2·50	.....	.....	.....	7·00	.....	4·00	.....	.....		2119
Contents as found..	2·10	2·55	6·05	1·50	0·25	7·80	7·55	3·86	12·40	19	99	
Guaranteed contents	1·65—2·47	2—3	.....	.....	.....	9·-10	7·-8	5·-6	.....	18	91	2120
Contents as found..	2·03	2·45	5·80	0·35	1·55	7·70	6·15	5·31	9·10	20	02	
Guaranteed contents	1·65—2·47	2—3	.....	.....	.....	.....	7—8	2·50	.....	15	81	2121
Contents as found..	1·74	2·11	1·15	2·55	0·37	7·07	6·70	5·57	11·36	19	38	
Guaranteed contents	3·29	4·00	.....	.....	.....	6·00	.....	8·00	.....	.....		2122
Contents as found..	3·12	3·79	5·42	1·00	0·50	6·92	6·42	8·53	12·30	26	89	
Guaranteed contents	2·06	2·50	.....	.....	.....	.....	8·00	1·50	.....	17	30	2123
Contents as found..	2·11	2·57	7·50	1·63	0·62	9·75	9·13	3·84	10·70	21	99	
Guaranteed contents	0·82	1·00	.....	.....	1·00	8	7	1·	.....	11	79	2124
Contents as found..	0·98	1·19	5·39	1·88	0·82	8·00	7·18	1·23	12·50	13	24	
Guaranteed contents	1·24	1·50	.....	.....	1·60	8	7	2	.....	14	22	2125
Contents as found..	1·29	1·56	5·37	3·88	0·62	9·87	9·25	2·10	6·70	17	44	
Guaranteed contents	1·65	2·00	.....	.....	.....	9	8	.....	.....	17	38	2126
Contents as found..	2·07	2·52	5·00	3·63	0·87	9·50	8·65	3·	·75	20	54	
Guaranteed contents	2·47	3·00	.....	.....	.....	10	8	.....	.....	21	80	2127
Contents as found..	2·55	3·09	5·32	4·48	0·95	10·75	9·80	4·19	9·30	24	46	
Guaranteed contents	1·65	2·00	.....	.....	.....	8	7	4	.....	17	61	2128
Contents as found..	1·54	1·87	5·10	3·75	0·62	9·47	8·85	4·44	6·35	20	11	
Guaranteed contents	2·47	3·00	.....	.....	.....	9	8	6	.....	23	50	2129
Contents as found..	2·60	2·96	4·80	5·32	0·95	11·07	10·12	6·56	6·40	27	30	
Guaranteed contents	3·29	4·00	.....	.....	.....	7	6	10	.....	28	09	2130
Contents as found..	3·96	4·78	4·17	4·20	0·75	9·12	8·37	10·50	4·50	33	81	2131
Guaranteed contents	3·70	4·50	.....	.....	1	8	7	10	.....	30	58	
Contents as found..	4·09	4·96	4·45	4·22	0·70	9·37	8·67	10·00	7·60	34	10	
Guaranteed contents	2·47	3	.....	.....	.....	25	.....	.....	.....	.....		2132
Contents as found...	2·65	3·19	.....	17·50	7·25	24·75	17·50	.....	4·50	29	84	

Date when Advised.	Designation.	No. of Sample.	Manufacturer.	By whom sent.	From what Materials Produced.
1908.					
Feb. 14	Peerless Fertilizer.	2133	New England Fertilizer Co., Boston.	"	Blood, meat, bone, bone black, bone phosphate, nitrate soda or sulphate ammonia and sulphate of potash or muriate of potash.
" 14	Potato Fertilizer	2134	"	"	"
" 14	New England Corn and Grain.	2135	"	"	"
" 14	N.E. Potato Grower	2136		"	"
" 14	N.E. Ground Bone	2137	"	"	"
" 14	Essex XXX Fish and Potash.	2138	Essex Fertilizer Co., Boston.	"	Fish meat, bone, bone black, bone phosphate, nitrate of soda or sulphate of ammonia and sulphate or muriate of potash.
" 14	Essex Market Garden and Potato Manure	2139	"	"	"
" 14	Essex Complete Manure for Potatoes, Roots and Vegetables.	2140	"	"	"
14	Essex Ground Bone	2141	"	"	"
14	Bradley's Superphosphates for Orchards	2142	Am. Agr. Chemical Co., Boston Sales Dept.	"	Bone black, phosphate guano, muriate or sulphate of potash.
" 14	Bradley's Potato Fertilizer.	2143	"	"	Bone black, animal bone, phosphate guano, dried fish, meat or blood, nitrate of soda or sulphate of ammonia, sulphate or muriate of potash, sulphuric acid.
" 14	Bradley's XL Superphosphate of Lime.	2144	"	"	"
" 14	Bradley's Farmers New Method Fertilizer.	2145	"	"	"
14	Bradley's Fine Ground Bone.	2146	"	"	"
" 14	Bradley's Eclipse Phosphate.	2147	"	"	"

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.											
	Nitrogen.		Phosphoric Acid.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	No. of Sample.	
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citrate soluble.	Insoluble.	Total.	Total available.					
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	$ c.		
Guaranteed contents	0·82	1	.....	.....	1	8	7	1	.....	11 79	2133	
Contents as found...	1·04	1 26	5 75	3·30	0·70	9 75	9·05	1 41	4·95	15 69		
Guaranteed contents	1 65	2	.....	.....	.....	8	7	1	.....	17 61	2134	
Contents as found...	1·74	2·11	5 57	3·06	0 62	9 25	8 63	4 57	9 10	20 72		
Guaranteed contents	1·24	1 50	.....	.....	.....	8	7	2	.....	14 22	2135	
Contents as found...	1 44	1 75	5 55	1 40	1·50	8 45	6 95	2·56	7 70	16 11		
Guaranteed contents	2·47	3	.....	.....	.....	7	6	10	.....	25 30	2136	
Contents as found...	2 52	3 06	4 95	0 60	2·45	8·00	5 55	10 94	6·70	26 84		
Guaranteed contents	2 47	3	.....	.....	.....	25	.....	.....	.....	.....	2137	
Contents as found...	2·51	3 03	.....	14 23	10 87	25·10	14·23	.....	10 35	26 95		
Guaranteed contents	2 06	2 5	.....	.....	1	9	8	3	.....	19 10	2138	
Contents as found...	2 14	2·60	7·52	1·36	2·12	11 00	5 88	3·41	7·80	21 84		
Guaranteed contents	2·06	2 5	.....	.....	1	9	8	5	.....	21 10	2139	
Contents as found...	2·17	2·63	4·85	3·15	2·75	10 75	8 00	5 51	7·15	23 03		
Guaranteed contents	3 29	4	.....	.....	1	7	6	10	.....	28 09	2140	
Contents as found...	3 61	4·39	4 42	2·75	2·25	9 42	7 17	10·35	6·30	31 63		
Guaranteed contents	2·47	3	.....	.....	.....	23	10	.....	.....	22 80	2141	
Contents as found...	2·63	2 20	.....	14·65	9·10	23·75	14 65	.....	5 35	27 26		
Guaranteed contents	.....	.....	11—13	3—4	1—2	15—19	14—17	.....	.....	16 80	214	
Contents as found...	trace.	trace.	12 00	1·60	3·25	16 85	13 60	.....	10 70	17 14		
Guaranteed contents	2 06—2·88	2 5—3·5	5—6	3—4	2—3	10- 13	8—10	3—4	.....	19 90	2143	
Contents as found...	2 24	2·72	6 00	1·75	3 00	10·75	7 75	3 59	11 40	21 23		
Guaranteed contents	2·06 -2·88	2·5—3·5	5—6	3—4	2—3	10—13	8—10	1·5-2·5	.....	18 40	2144	
Contents as found...	2·27	2·75	6·62	0·55	3·00	10·17	7·17	1 73	12·15	18 90		
Guaranteed contents	1·03—2·50	1·25- 3	6 - 8	2—4	2—3	10 -15	8—12	2—3	.....	15 50	2145	
Contents as found...	1·48	1·80	6·90	1·95	2·15	11·00	8·85	2·15	13·35	18 20		
Guaranteed contents	2·50—3·25	3—4	.....	.....	.....	21 25	.....	.....	.....	.....	2146	
Contents as found...	2·91	3 54	.....	19 50	7·00	26·50	19·50	.....	5 75	33 44		
Guaranteed contents	1·03—2·50	1·25—3·00	6—8	-4	2—3	10—15	8—12	2—3	.....	15 50	2147	
Contents as found...	1·31	1·60	6 12	·73	2·25	11·10	8·85	2·20	6 15	17 68		

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1908.					
Feb. 14	Bradley's Eureka Fertilizer.	2148	Am. Agr. Chemical Co., Boston Sales Dept.	Manufacturers	Bone black, animal bone, phosphate guano, dried fish, meat or blood, nitrate of soda or sulphate of ammonia, sulphate or muriate potash, sulphuric acid.
" 14	Bradley's Alkaline Bone with Potash.	2149	"	"	"
" 14	Bradley's Complete Manure with 10 per cent Potash	2150	"	"	"
" 14	Bradley's High Grade Fertilizer with 10 per cent Potash.	2151	"	"	"
" 14	Read's Standard Superphosphate.	2152	"	"	"
14	Read's Sure Catch Fertilizer.	2153	"	"	Bone black and phosphate guano, muriate or sulphate potash.
" 14	Read's Fish Bone and Potash.	2154	"	"	Bone black, animal bone, phosphate guano, dried fish, meat, or blood, nitrate of soda or sulphate of ammonia, sulphate or muriate of potash, sulphuric acid.
14	Read's Practical Potato Special.	2155	"	"	"
" 14	Read's Vegetable and Vine Fertilizer.	2156	"	"	"
" 14	Read's Potato Manure.	2157	"	"	"
" 14	Read's High Grade Farmers Friend.	2158	"	"	"
14	Tucker's Imperial Bone Superphosphate.	2159	"	"	"
" 14	Williams & Clark's Americus Potato Manure.	2160	"	"	"
14	Pacific Potato Special.	2161	"	"	"
" 14	Pacific Nobsque Guano.	2162	"	"	"
" 14	Pacific Fine Ground Bone.	2163	"	"	"

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.											
	Nitrogen.		Phosphoric Acid.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	No. of Sample.
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.				
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	$ c.	
Guaranteed contents	1·63–2·50	1·25–3·00	6–8	2–4	2–3	10–15	8–12	2–3	.....	15 50	2148
Contents as found.	1·51	1·84	5·97	1·45	3·25	10·67	7·42	2·16	13·80	17 03	
Guaranteed contents	.. ..	.....	5–7	5–6	1–2	12–15	11–13	2–3	.....	13 80	2149
Contents as found...	.....	.....	6·92	5·58	1·80	14·30	12·50	1·98	8·45	16 96	
Guaranteed contents	3·30–4·13	4–5	4–6	2–4	1–2	7–10	6–8	10–12	.....	28 52	2150
Contents as found...	3·39	4·11	5·85	1·60	1·80	9·25	7·45	9·57	10·15	30 42	
Guaranteed contents	2·40–3·00	3–4	5–6	1–2	1–2	7–10	6–8	10–12	.....	25 56	2151
Contents as found...	2·69	3·26	5·17	2·15	2·10	9·42	7·32	9·84	8·55	28 19	
Guaranteed contents	0·82–1·65	1–2	5–7	3–4	2–3	10–14	8–11	4–5	.....	16 69	2152
Contents as found...	1·16	1·41	5·42	2·71	2·37	10·50	8·13	5·44	6·55	19 58	
Guaranteed contents	.....	.....	6–7	4–5	1–2	11–14	10–12	2–3	.....	13 90	2153
Contents as found...	....	.....	6·82	4·20	2·10	13·12	11·02	1·87	10·40	15 30	
Guaranteed contents	2–3	2·40–3·60	3–4	1–2	1–2	5–8	4–6	4–6	.....	15 80	2154
Contents as found...	2·30	2·81	5·90	2·35	2·12	10·37	8·25	4·34	14·60	22 46	
Guaranteed contents	0·82–1·55	1–2	2–3	2–3	1–2	5–8	4–6	8–10	.....	15 69	2155
Contents as found...	1·12	1·36	5·25	1·42	2·75	9·42	6·67	9·07	14·00	21 57	
Guaranteed contents	2·06–2·88	2·5–3·5	5–6	3–4	2–3	10–13	8–10	6–7	.....	22 90	2156
Contents as found. .	2·58	3·13	6·05	2·13	1·92	10·10	8·18	6·50	13·90	25 45	
Guaranteed contents	2·4–3	3–4	5–6	1–2	1–2	7–10	6–8	10–12	.....	25 56	2157
Contents as found..	2·86	3·47	5·42	1·28	2·55	9·25	6·70	9·84	7·25	28 24	
Guaranteed contents	3·5–4·13	4–5	4–6	2–4	1–2	7–10	6–8	10–12	.....	29 20	2158
Contents as found...	3·85	4·67	6·00	1·55	1·80	9·35	7·55	9·82	10·40	32 36	
Guaranteed contents	1·03–2·50	1·25–3	6–8	2–4	2–3	10–15	8–12	2–3	.....	15 50	2159
Contents as found...	1·18	1·43	6·50	2·25	2·50	11·25	8·75	2·81	12·40	17 85	
Guaranteed contents	2·06–2·88	2·5–3·5	5–6	3–4	2–3	10–13	8–10	3–4	.....	19 90	2160
Contents as found...	2·16	2·62	5.97	2·73	2·80	11·50	8·70	3·57	11·10	21 92	
Guaranteed contents	2·06–2·88	2·5–3·5	5–6	3–4	2–3	10–13	8–10	3–4	.....	19 90	2161
Contents as found...	2 27	2 75	5·62	3·21	2·82	11·65	8·83	3·47	11·10	22 31	
Guaranteed contents	1·03–2·5	1·25–3·0	6–8	2–4	2–3	10–15	8–12	2–3	.....	15 50	2162
Contents as found...	1·23	1·50	6·15	2·05	2.10	10 30	8·20	2·18	13·35	16 63	
Guaranteed contents	2·5–3·25	3–4	.....	.....	.....	21–23	.....	.....	.....	.....	2163
Contents as found...	2·23	2·70	.....	17·20	8·30	25·50	17·20	.....	5·10	28 99	

DESCRIPTION OF STANDARD SAMPLES OF

Date when advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1907.					
Feb. 14	Soluble Pacific Guano	2164	Am. Agr. Chem. Co., Boston Sales Dept.	Manufacturer.	Bone black, animal bone, phosphate, guano, dried fish, meat or blood, nitrate of soda or sulphate of ammonia, sulphate or muriate potash, sulphuric acid.
" 14	Quinnipiac Climax Phosphate for all Crops.	2165	" "	"	"
" 14	Quinnipiac Potato Manure.	2166	"	"	"
" 14	Quinnipiac Market Garden Manure.	2167	"	"	"
" 14	Cumberland Superphosphate.	2168	" "	"	"
" 14	Cumberland Potato Fertilizer.	2169	" "	"	"
" 14	Cumberland Fine Ground Bone.	2170	" "	"	"
" 14	Standard Fertilizer	2171	"	"	"
" 14	Standard Special for Potatoes	2172		"	"
" 14	Darling's Blood, Bone and Potash.	2173	" "	"	"
" 14	Clark's Cove, Great Plant Manure.	2174	" "	"	"
" 14	Highgrade Fertilizer, with 10 Potash.	2175	"	"	"
" 21	Croker's General Crop Fertilizer.	2176	Am. Agr. Chem. Co., Buffalo Sales Dept.	"	Bone, char bone, dried blood, tankage, meat, fish, bone phosphate, sulphate of ammonia, nitrate of soda, muriate or sulphate of potash, sulphuric acid.
" 21	Special Potato Phosphate.	2177	Nova Scotia Fertiliser Co., Halifax, N.S.	"	
" 21	Bone Meal	2178	" "	"	"
" 21	10% Potato Phosphate.	2179	" "	"	"
" 14	Ceres Superphosphate	2180	Nova Scotia Fertilizer Co., Halifax, N.S.	Manufacturers	Bone char-bone, dried blood, tankage meat, fish, bone phosphate, sulphate of ammonia, nitrate soda, muriate or sulphate of potash, sulphuric acid

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.													
	Nitrogen.			Phosphoric Acid.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	No. of Sample.
	Total including that of nitrate acid or ammonia if present.		Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.				
	p.c.		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	
Guaranteed contents	2 06	2 88	2 5—3 5	5 6	3 4	2 3	10 13	8 10	1 5-2 5	....	18 40	2164
Contents as found.		2 09	2 83	6 72	1 21	3 37	11 30	7 93	1 68	10 20	19 19	
Guaranteed contents	1 03	1 65	1 25—3 00	6—8	2—4	2—3	10 15	8 12	2 3	....	15 50	2165
Contents as found.		1 12	1 86	5 80	1 88	2 82	10 50	7 68	3 51	14 05	17 19	
Guaranteed contents	2 5	3 25	3—4	5—6	1 2	2—3	8 11	6 8	5—6	....	21 20	2166
Contents as found.		2 13	2 58	4 00	2 65	3 35	10 00	6 65	5 56	13 00	21 52	
Guaranteed contents	3 30	4 12	4 5	6—8	2 3	1 2	9 13	8—11	7 8	....	27 92	2167
Contents as found.		2 16	2 62	6 15	2 52	2 25	10 92	8 67	7 70	8 50	25 87	
Guaranteed contents	2 06—2 88		2 5—3 5	5 6	3—4	2—3	10—13	8—10	1 5-2 5	....	18 40	2168
Contents as found.		1 53	1 85	6 92	3 51	2 32	12 75	10 43	1 87	10 60	19 93	
Guaranteed contents	2 06	2 88	2 5—3 5	5—6	3—4	2 3	10—13	8—10	3 4	....	19 90	2169
Contents as found.		1 74	2 11	6 35	2 05	2 77	11 17	8 40	3 72	12 25	20 34	
Guaranteed contents	2 5—3 25		3—4	....	....	....	21 23	....	....	....	....	2170
Contents as found.		2 38	2 89	....	14 93	9 82	24 75	14 93	....	5 15	27 46	
Guaranteed contents	2 06—2 88		2 5—3 5	5—6	3—4	2—3	10—13	8—10	1 5-2 5	....	18 40	2171
Contents as found.		1 40	1 70	6 62	2 81	2 32	11 75	9 43	1 77	12 00	18 20	
Guaranteed contents	2 06—2 88		2 5—3 5	3—6	3—4	2—3	10—13	8—10	3—4	....	17 50	2172
Contents as found.		1 76	2 14	5 50	3 65	2 35	11 50	9 15	3 66	11 95	20 96	
Guaranteed contents	4 10 -5		5—6	5—7	2 3	1—2	8 12	7 10	7 8	....	29 44	2173
Contents as found.		3 75	4 50	5 35	2 10	1 70	9 15	7 45	7 12	9 95	29 11	
Guaranteed contents	3 3—4 12		4—5	6—8	2—3	1—2	9—13	8—11	7—8	....	27 92	2174
Contents as found.		3 65	4 44	5 75	2 90	1 87	10 52	8 65	7 87	7 70	30 93	
Guaranteed contents	2 4—3		3 4	5—6	1 -2	1 2	7—10	6—8	10 12	....	25 56	2175
Contents as found.		2 73	3 30	5 37	1 95	2 05	9 37	7 32	10 29	8 40	28 78	
Guaranteed contents	0 82	1 65	1 2	5—6	2 3	1 2	8—10	7—9	1—2	....	12 29	2176
Contents as found.		0 87	1 05	5 40	2 02	2 00	9 42	7 42	1 31	11 85	13 57	
Guaranteed contents	1 65	2 47	2 3	....	....	2 3	8 11	6 8	7—9	....	19 81	2177
Contents as found.		2 87	3 49	6 20	1 30	1 60	8 50	7 50	10 13	9 15	29 06	
Guaranteed contents	2 47—3 29		3—4	....	....	....	....	....	....	....	....	2178
Contents as found.		4 38	5 32	....	15 75	9 50	25 25	15 75	....	8 20	34 19	
Guaranteed contents	2 06—2 47		2 5—3	....	....	2 3	8—11	6—8	10 12	....	24 20	2179
Contents as found.		1 69	2 06	5 85	1 58	1 32	8 75	7 43	10 06	9 65	24 96	
Guaranteed contents	1 65	2 47	2 3	....	....	2 3	9 12	7 9	2 3	....	15 91	2180
Contents as found.		1 75	2 13	7 22	1 38	1 80	10 40	8 60	4 61	9 90	21 28	

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised.	Designation.	Number of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1907.					
Feb. 14	Potato Phosphate	2181	Nova Scotia Fertilizer Co., Halifax, N.S.	Manufacturers	Bone char, bone dried blood, tankage meat, fish bone phosphate, sulphate of ammonia, nitrate of soda, muriate or sulphate of potash, sulphuric acid
" 14	Tankage	2182	Gunns Ltd. Toronto Junction.	"	.....
" 22	Soluble Bone	2183	Buffalo Fertilizer Co., Buffalo, N.Y.	"	Ammonia from animal matter, tankage and blood phosphoric acid from phosphate rock, acidulated and from fine ground bone and the potash from muriate of potash
" 22	Extra Bone and Potash.	2184	" " "	"	"
" 22	Fish Guano	2185	" " "	"	"
" 22	Farmers Choice	2186	" " "	"	"
" 22	Ideal Wheat and Corn	2187	" " "	"	"
" 22	Celery and Potato Special.	2188	" " "	"	"
Mar. 3	Reid's Superphosphate	2189	Thomas Reid, St. John, N.B.	"	Calcined bones, old meat, fish offal, kainite, sulphate of ammonia, &c.
3	Slag	2190		Nova Scotia Fertilizer Co., Halifax.	
" 5	Stockbridge Special Complete Manure for Potatoes and Vegetables.	2191	Bowker Fertilizer Co., Boston.	Manufacturers	Bone, bone-black, phosphatic grain, bone phosphates, dried blood meat or fish, sulphate of ammonia or nitratre of soda, sulphate of potash or muriate of of potash and sulphuric acid.
" 5	[illegible] den Fertilizer.	2192	"	"	"
" 5	Bowker's Vermont Phosphate.	2193	" " "	"	"
" 5	Bowker's Potato and Vegetable Phosphate.	2194	" " "	"	"
" 5	Bowker's Corn Phosphate.	2195	" " "	"	"

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.										No. of Sample.
	Nitrogen.		Phosphoric Acid.								
	Total including that of nitric acid or ammonia present.	Total calculated as ammonia.	Soluble in water.	Citrate soluble.	Insoluble.	Total	Total available.	Potash.	Moisture.	Relative value per ton of 2,000 lbs. $ c.	
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.		
Guaranteed contents	1·65—2 47	2—3	.....	.....	2—3	9—12	7—9	4—5	..	17 91	2181
Contents as found..	1·68	2 04	8·75	.....	1 30	10 02	8 72	4·82	9.70	21 42	
Guaranteed contents	7·42	9 06	.....	.....	.....	13·5	.....	.....	6 9	.....	2182
Contents as found.	7·25	8·81	1 62	6 78	2·35	10·75	8 40	.....	12·15	33 31	
Guaranteed contents	.....	.....	.....	.....	.....	.....	14	.....	.....	15 40	2183
Contents as found..	.....	.....	11·90	0 28	4·52	16·70	12·18	.....	8 20	15 94	
Guaranteed contents	.....	.....	.....	.....	.....	.....	10	8	.....	19 00	2184
Contents as found ..	0·49	0·60	10·05	1·17	4 20	15·42	11 22	8·11	5·10	24 38	
Guaranteed contents	0·82	1	.....	.....	.....	.....	9	2	.....	14 52	2185
Contents as found..	0·98	1·19	6·62	0·93	4·30	11·85	7·55	2·74	12·25	16 13	
Guaranteed contents	0·82	1	.....	.....	.....	.....	8	5	.....	16 59	2186
Contents as found..	1 01	1·22	5·75	0·80	·30	9·85	6·55	6·18	14·40	18 [redacted]	
Guaranteed contents	1 65	2	.....	.....	.....	.....	9	5	.....	20 51	2187
Contents as found..	1·69	2·06	5·37	1·55	3 75	10 67	6·92	4·84	10 45	19 86	
Guaranteed contents	1 65	2	.....	.....	.....	.....	8	10	.....	24 41	2188
Contents as found..	1·72	2 09	4·62	1·40	3·65	9·67	6·02	10 81	13·60	24 84	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2189
Contents as found	0·69	0·83	2·37	3·20	4·35	9·92	5 57	.....	16·55	10 02	
Guaranteed contents	.....	.....	.....	.....	.....	.....	16	..	.....	17 60	2190
Contents as found..	.....	.....	.....	.....	5·37	17·60	12 23	..	.....	15 06	
Guaranteed contents	3·29	4	.....	.....	.....	.....	7	6	10	.....	28 09	2191
Contents as found .	3 11	3·77	5·37	1·88	1 25	8·50	7·25	9 69	7·45	29 15	
Guaranteed contents	2·47	3	.....	.....	.....	.....	7	6	10	.....	25 30	2192
Contents as found .	2·72	3·30	4·67	2·06	2·02	8·75	6·73	10·13	6·55	27 85	
Guaranteed contents	2 47	3	.....	.....	.....	.....	10	8	4	.....	21 80	2193
Contents as found..	2 65	3·11	4·92	3 13	2·35	10·40	8·05	4·82	12·80	23 88	
Guaranteed contents	1 65	2	.....	.....	.....	.....	9	8	2	.....	16 71	2194
Contents as found..	1·68	2·04	6·12	2 81	2·77	11·70	8·93	2·10	9·60	19 06	
Guaranteed contents	1·65	2	.....	.....	.....	.....	9	8	2	.....	16 71	2.
Contents as found..	1·74	2·11	5·92	2·86	2·37	11·15	8·78	2 43	11 30	19 31	

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1907.					
March 5	Bowker's Square Brand Bone and Potash.	2196	Bowker Fertilizer Co., Boston.	Manufacturers	Bone, bone-black, phosphateguano, bone phosphates, dried blood meat or fish, sulphate of ammonia or nitrate of soda, sulphate of potash or muriate of potash and sulphuric acid.
" 5	Bowker's Farm and Garden Phosphate.	2197	" "	"	"
" 5	Bowker's Sure Crop Phosphate.	2198	" "	"	"
" 5	Bowker's Potash Bone Phosphate.	2199	" "	"	"
" 5	Bowker's 6% Potatoe Fertilizer.	2200	" "	"	"
" 5	Bowker's 10% Manure.	2201	" "	"	"
" 5	Bowker's Superphosphate with Potash.	2202	" "	"	"
" 5	Bowker's Fresh Ground Bone.	2203	"	"	"
" 5	Bowker's Nitrate of Soda.	2204	" "	"	"
" 5	Bowker's Muriate of Potash.	2205	" "	"	"
" 5	Bowker's Dissolved Bone black.	2206	" "	"	"
" 7	H. Fertilizer	2207	W. Harris & Co., Toronto	"	Flesh and blood.
" 7	Bone Meal	2208	" "	"	Bones
" 9	Imperial Superphosphate.	2209	Provincial Chemical Fertilizer Co., St. John, N.B.	"	"
" 9	Complete Aroostook Potato.	2210	" "	"	"
" 9	Bone, Blood and Potash.	2211	" "	"	"
" 9	Special Potato Phosphate.	2212	Provincial Chemical Fertilizer Co., St. John, N.B.	Manufacturers	
" 9	Victor Guano	2213	"	"	
" 9	Bone Meal	2214	" "	"	
" 10	Virginia Tobacco Fertilizer.	2215	Am. Agr. Chem. Co., Buffalo Sales Dept.	"	Animal matter, mineral phosphates and potash, all treated with sulphuric acid.

FERTILIZERS REGISTERED FOR THE YEAR 1908.

—	Results of Analysis.										No. of Sample.
	Nitrogen.		Phosphoric Acid.					Potash.	Moisture.	Relative value per ton of 2,000 lbs.	
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.				
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	$ c	
Guaranteed contents	1·65	2				7	6	2		14 51	2196
Contents as found ..	1·65	2 01	6·20	1·82	2 85	10 87	8·02	2·53	7·85	18 44	
Guaranteed contents	1·65	2				9	8	2		16 71	2197
Contents as found ..	1·71	2·07	6·62	1·96	2 62	11·20	8·58	2·60	8·05	19 30	
Guaranteed contents	0 82	1				9	8	2		13 89	2198
Contents as found ..	0·91	1·10	5·75	3·13	1·57	10·45	8·88	1·95	11·15	15 86	
Guaranteed contents	0 82	1				8	6	2		11 99	2199
Contents as found ..	0·98	1·19	3·42	4·38	2·00	9·80	7 80	2·20	14 25	15 05	
Guaranteed contents	0·82	1				7	6	6		15 69	2200
Contents as found ..	0·84	1·02	5·70	1·85	1·45	9·00	7·55	6 14	10·15	18 31	
Guaranteed contents	0 82	1				6	5	10		18 59	2201
Contents as found ..	0·81	0·99	4·65	2·67	1·05	8 37	7 32	9·84	9·90	21 43	
Guaranteed contents	.....	.....				11	10	2		13 30	2202
Contents as found ..	0·78	0·96	5·57	3·98	3·50	13 05	9·55	2·10	10·00	16 86	
Guaranteed contents	2·47	3				22·18					2203
Contents as found ..	2·29	2·79	.....	15·55	8·75	24·30	15·55	.....	4·55	27 52	
Guaranteed contents	14·83	18								50 42	2204
Contents as found ..	14·62	17·75	.....	.....	.....	.....	.....	.....	0 88	49 71	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	50	.....	50 00	2205
Contents as found ..	.....	.....	.....	.....	.....	.....	.....	48 20	2·30	48 20	
Guaranteed co..tents	.....	.....	.....	.....	.....	.....	.....	15	.....	16 50	2206
Contents as found ..	Trace.	Trace.	12·10	2 90	0·25	15·25	15·00	.....	14·05	17 79	
Guaranteed contents	7·13	8·66	.....	.....	.....	8 43	.....	.....	.....	.....	2207
Contents as found ..	7·03	8·53	0·20	5 35	2·25	7 80	5·55	.....	8·35	20 30	
Guaranteed contents	1·96	2 38	.....	.....	.....	27 23	.....	.....	.....	.....	2208
Contents as found ..	1·43	1 73	.....	17·05	8·75	25·80	17·05	.....	5·30	25 96	
Guaranteed contents	2 80	3·4	.....	.....	.....	.....	10 3	2 4	.....	23 25	2209
Contents as found ..	2·52	3·06	6 75	3·18	2·12	12 05	9 93	.....	8·90	22 86	
Guaranteed contents	3·02	3·67	.....	.....	.....	.....	8·57	9·72	.....	29 42	2210
Contents as found ..	3·09	3·76	4·75	2·17	0·85	7·77	6·92	.....	7·65	29 79	
Guaranteed contents	1·96	2·38	.....	.....	.....	.....	8·69	5·00	.....	21 22	2211
Contents as found ..	1·96	2·38	4·20	4·00	2·00	10·20	8·20	.....	3·70	21 77	
Guaranteed contents	2·55	3·10	.....	.....	.....	.....	8·15	7·20	.....	24 84	2212
Contents as found ..	2 31	2·81	4·67	2·46	0·87	8·00	7·13	.....	9·30	23 80	
Guaranteed contents	1·96	2·38	.....	.....	.....	.....	10·47	3·84	.....	21 63	2213
Contents as found ..	2·03	2·47	4·45	4·78	2·12	11·35	9·23	.....	4·90	21 38	
Guaranteed contents	3·21	3·90	.....	.....	.....	24·40	.....	.....	.....	.....	2214
Contents as found ..	2·66	3·23	—	13·70	8·95	22·65	13·70	.....	6·15	26 27	
Guaranteed contents	1·65—2·47	2 to 3	6—7	2—3	1—2	9 - 11	8—10	4—5	.....	19 31	2215
Contents as found ..	2·67	3·25	4·55	6·55	1 05	12·15	11·10	8·14	2·80	30 20	

DESCRIPTION OF STANDARD SAMPLES OF

Date when Advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1907.					
Mar. 14	Bilston Basic Slag	2216	Alfred Hickman Co'y., Bilston, England.	E. E. McNutt, Truro, N.S.	
" 19	Sulphate of Ammonia	2217		Mathias O. Ferland, Berthierville, Que.	
" 19	Celery, Onion and Truck Fertilizer.	2218		" "	
" 19	Croker's H.G Special Fertilizer.	2219		" "	
" 19	Muriate of Potash	2220		" "	
" 19	Sulphate of Potash	2221		" "	
" 19	Eureka Special Tobacco.	2222		" "	
" 20	No. 1 Superphosphate.	2223	Capelton Chemical Fertilizer Co., Buckingham, Que.	Capleton Chemical Fertilizer Co., Buckingham, Que.	
" 20	Royal Canadian	2224	" "	" "	
" 20	Reliance	2225	" "	" "	
" 20	Victor	2226	" "	" "	
" 20	Leeds Thomas Phosphate Flour.	2227		Davison Hill, Onslow Station, N.S.	
" 25	Ground Bone	2228		Brackman & Ker Milling Co., Vancouver.	
April 6	Bone Meal	2229			
" 7	Dried Tankage	2230	Canadian Packing Co., London, Ont.	Themselves	Waste general of packing house.
" 9	Fertilizer	2231	Joseph O'Mara, Palmerston, Ont.	Himself	Blood, offal and tankage of hogs.
" 18	Fertilizer 'A'	2232	Viccoria Chemical Co., Ltd., Victoria, B.C.	Themselves	Nitrate of soda, muriate of potash and superphosphate of lime.
" 18	Fertilizer 'B'	2233	" "	"	"
" 18	Fertilizer 'C'	2234	" "	"	Muriate of potash and superphosphate of lime.
" 18	Fertilizer 'D'	2235	" "	"	Nitrate of soda, muriate of potash and superphosphate of lime.
" 18	Superphosphate of Lime.	2236	" "	"	Spent bone, char and sulphuric acid.
" 18	Nitrate of Soda	2237	" "	Imported from Chili	
" 18	Sulphate of Potash	2238	" "	Imported from Germany.	
" 18	Muriate of Potash	2239	" "	" " Imported from Germany.	

FERTILIZERS REGISTERED FOR THE YEAR 1908.

—	Results of Analysis.										No. of Sample.
	Nitrogen.		Phosphoric Acid.							Relative value per ton of 2,000 lbs.	
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.	Potash.	Moisture.		
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	$ c.	
Guaranteed contents											2216
Contents as found			—	14·25	6·10	20·35	14·25			17 51	
Guaranteed contents	24—25									81 60	2217
Contents as found	20·40	24·78								69 36	
Guaranteed contents	4·11	5				4		12			2218
Contents as found	4·07	4·95	3·67	1·83	1·00	6·50	5·50	12·06	9·45	32 62	
Guaranteed contents	1·65	2				8		4			2219
Contents as found	1·93	2·35	6·67	1·93	1·10	9·70	8·60	4·11	10·20	21 13	
Guaranteed contents								50—55		50 55	2220
Contents as found								55·28	1·55	55 28	
Guaranteed contents								48—50		48 50	2221
Contents as found								49—56	1·00	49 56	
Guaranteed contents	2·47	3				4		4			2222
Contents as found	2·2.	2·75	1·40	2·50	2·50	6·40	3·90	4·05	5·90	16 95	
Guaranteed contents						10—14					2223
Contents as found			10·05	2·58	1·87	14·50	12·63		8·75	15 46	
Guaranteed contents	3·29—4·11	4·5				9—11		5—6			2224
Contents as found	4·12	5·00	9·65	0·17	1·30	11·12	9·82	6·27	10·15	32 44	
Guaranteed contents	1·65—2·47	2—3				6—7		2—3			2225
Contents as found	2·77	3·66	5·00	3·45	1·17	9·62	8·45	2·89	5·40	22 45	
Guaranteed contents	1·65—2·47	2—3				7—9		3—4			2226
Contents as found	2·69	3·26	6·65	1·12	1·35	9·12	7·77	3·70	6·20	22. 46	
Guaranteed contents											2227
Contents as found	—	—		13·35	7·00	20·35	13·35		0·55	16 79	
Guaranteed contents	4·65	5·65					11·17	0·5		27 21	2228
Contents as found	4.72	5 73		14·00	8·00	22·00	14·00	0·67	6·15	33 57	
Guaranteed contents	4·21					19·66					2229
Contents as found	3·21	3·89		16·50	[illegible]	26·25	16·50		1·10	31 35	
Guaranteed contents											2230
Contents as found	5·45	6·61	0·12	9·13	2·00	11·25	9·25		8·22	28 23	
Guaranteed contents	7·28	8·84				10·04		0·35	6·75		2231
Contents as found	7·03	8·53	0·12	7·93	1·95	10·00	8·05	0·59	7.35	32 54	
Guaranteed contents	4·0					10·0		7·0			2232
Contents as found	3·12	3.79	9·25	0·62	None.	9·87	9·87	8·26	12·10	30 65	
Guaranteed contents	3·5					9·00		11·00			2233
Contents as found	2·53	3·08	7·52	0·56	0·42	8·50	8·08	14·06	12·60	32 43	
Guaranteed contents						12·5		11·00			2234
Contents as found			11·20	0·98	0·37	12·55	12·18	12·16		26 79	
Guaranteed contents	2·5					10·0		11 00			2235
Contents as found	2·07	2·52	7·44	0·54	1·52	9·50	7·98	11·78	12·35	28 80	
Guaranteed contents						16·00					2236
Contents as found			15·55	4·05	1·15	20·75	19·60			23 46	
Guaranteed contents	16·0									54 40	2237
Contents as found	12·80	15·54							0·75	43 52	
Guaranteed contents								50·00		50 00	2238
Contents as found								47·96		47 96	
Guaranteed contents								50·00		50 00	2239
Contents as found								48·04		48·04	

DESCRIPTION OF STANDARD SAMPLES OF

Date when advised.	Designation.	No. of Sample.	Manufacturer.	By whom Sent.	From what Materials Produced.
1907.					
" 1.	Homestead, A Bone Black Fertilizer.	2240	Michigan Carbon Works, Detroit.	Themselves	Dissolved bone, black mineral phosphates sulphate of ammonia, acidulated tankage, sulphate or muriate of potash
" 18	Homestead High G. Garden and Vegetable Fertilizer.	2241	" "	"	" "
" 18	Homestead Sugar Bee Fertilizer.	2242	" "	"	" "
" 18	A-1-Potash Fertilizer.	2243	" "	"	" "
" 18	Desiccated Bone	2244	" "	"	Animal bone
" 23	Universal Fertilizer.	2245	Ontario Seed Co., Waterloo, Ont.	Manufacturers	Sulphate of potash
" 25	Engrais Chimique	2246	F. Canac Marquis, Quebec.	Dr. Fiset	Green bones and dead animals.
" 30	Bone Meal	2247	Portland Seed Co., Portland, Oregon.	J. R. Rennie, Vancouver, B.C.	
" 30	Bone Meal	2248	" "	M. J. Henry, Vancouver, B.C.	
May 5	General Blood, Bone and Potash Fertilizer.	2249	Michigan Carbon Works, Detroit.	Am. Agamalated Chem. Co., Buffalo, N.Y.	Blood, bone and tankage mineral phosphates and potash.
" 5	Best Potato and Garden Blood and Tankage Fertilizer	2250	" "	" "	" "

FERTILIZERS REGISTERED FOR THE YEAR 1908.

	Results of Analysis.										
	Nitrogen.		Phosphoric Acid.								
	Total including that of nitric acid or ammonia if present.	Total calculated as ammonia.	Soluble in water.	Citric soluble.	Insoluble.	Total.	Total available.	Potash.	Moisture.	Relative value per ton of 2,000 lbs.	No. of Sample.
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	$ c.	
Guaranteed contents	2·5	.....	.....	.....	.....	.....	8·00	1·50	.....	18 80	2240
Contents as found...	2·52	3·06	6·00	2·23	2·07	10·30	8·23	2·16	15·25	21 00	
Guaranteed contents	3·5	.....	.....	.....	.....	.....	8·00	5·00	.....	14 99	2241
Contents as found...	2·06	2·30	6·00	2·70	1·80	10·50	8·70	5·27	14·00	22 98	
Guaranteed contents	1·5	.....	.....	.....	.....	.....	9·00	2·00	.....	17 00	2242
Contents as found...	1·36	1·65	6·25	2·15	2·75	11·15	8·40	3·16	10·35	18 47	
Guaranteed contents	1·0	.....	.....	.....	.....	.....	8·0	3·00	.....	15 20	2243
Contents as found...	0·81	1·00	6·12	1·58	2·67	10·37	7·70	5·03	13·15	15 67	
Guaranteed contents	1·5	.....	.....	.....	.....	.....	25·00	.....	.....	32 30	2244
Contents as found...	1·22	1·48	—	16·75	14·50	31·25	16·75	.....	1·50	26 68	
Guaranteed contents	3 29—4·12	4—5	6—7	2—3	1·2	9—11	8—10	7—8	.....	27 89	2245
Contents as found...	3·15	3·94	8·17	0·68	1·15	11·00	9 85	5 34	8·00	26 95	
Guaranteed contents	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2246
Contents as found...	3·14	3·81	—	13·10	8·50	21·60	13·10	.....	15·80	27 00	
Guaranteed contents	3·62	.....	.....	.....	.....	20·40	.....	.....	.....	.....	2247
Contents as found...	3·58	4·35	None.	17·00	5·00	22·00	17·00	.....	6·25	31 66	
Guaranteed contents	3·62	.....	.....	.....	.....	20·40	.....	.....	.....	.....	2248
Contents as found...	2·96	3·59	None.	16·00	5·50	21·50	16 00	.....	6·25	28 72	
Guaranteed contents	1·65	2·00	6—7	2—3	1—2	9—11	8—10	10—11	.....	25 31	2249
Contents as found...	2·31	2·81	7·02	1·68	1 50	10·00	8·70	9·92	9·75	28 44	
Guaranteed contents	2·06	2·50	6—7	2—3	1—2	9—11	8—10	6—7	.....	22 70	2250
Contents as found...	2·13	2·58	5·87	3·12	2·01	11·00	8 99	7 30	7·30	25 62	